

CHAPTER 3

SURFACE WEATHER OBSERVATIONS

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The surface weather observations at gas release times are given in Table 3.1.

Table 3.1

STATION CONRAD AFB MONTH JULY DAY 1956 YEAR 1956
 LAT. 32° 30' N LONG. 98° 11' W

Time entries on this form are _____ h meridian time.
 To convert to G.C.T. { add subtract } _____ hours.
 Height of barometer _____ ft. (MSL)

Gas Release (CST)	Time (CST)	Ceiling (Hundreds of Feet)	Sky	Visibility (miles)	Weather and Level Obstructions to Vision		Sea Level Press. (mb)	Temp. (°F)	Dew Pt. (°F)	Dir. (°)	Wind		Character & Shifts	Altimeter Set (in)	Remarks and Supplemental Coded Data	Observer's Initials
					Type	Height					Speed (Knots)	Speed (mph)				
1	1100	30	4	5	6	7	73	64	10	S	11A	11B	15	14	AE 50 SC 30 Cu 15	14B 15
2	1505	35		13			75	69								
3	2200	UNL		15			67	63								
4	0100	UNL		15			63	62								
5	1415	UNL		15			68	62								
6	1700	UNL		15			67	62								
7	1415	UNL		15			60	55								
8	1700	UNL		15			69	59								
9	1600	UNL		15			63	64								
10	1200	UNL		15			68	66								
11	0800	UNL		12			79	65								
12	1030	UNL		15			66	66								
13	2000	UNL		15			68	58								
14	2206	UNL		15			61	58								
15	0800	UNL		10			72	61								
16	1000	UNL		10			62	62								
17	2000	UNL		10			61	62								
18	2206	UNL		18			73	55								
19	1100	UNL		15			69	50								
20	1400	UNL		15			64	57								
21	2200	Unknown		15			84	54								
22	0000	Unknown		15			80	54								
23	2100	UNL		15			74	64		SE						
24	2300	UNL		15			73	65		SE						

CLOUDS AND OBSCURING PHENOMENA

Gas Release (CST)	Time (CST)	Dew Pt. (°F)	Wet Bulb (°F)	Relative Humidity (%)	Total Sky Cover	LOWEST LAYER			SECOND LAYER			THIRD LAYER			FOURTH LAYER			Net 3-Hr. Change
						Type	Height	Dir.	Type	Height	Dir.	Type	Height	Dir.	Type	Height	Dir.	
1	1100	73	67	73	9	Sc	30	6	Sc	40	9							
2	1505	75	67	66	0	Cu	15											
3	2200	67	64	85	3		30											
4	0100	63	62	95	1		30											
5	1415	69	71	40	0													
6	1700	69	71	40	0													
7	1415	65	68	31	0													
8	1700	69	69	36	0													
9	1600	83	70	52	3	Al	60											
10	1200	88	73	48	3	Sc	80											
11	0800	79	70	62	0													
12	1000	88	74	52	0													
13	2000	68	62	71	2	Cu	40	2	H	50	2							
14	2200	61	58	86	0													
15	0800	72	65	49	0													
16	1000	83	70	51	0													
17	2600	81	64	36	7	Sc	30											
18	2200	75	63	51	1	Sc	50											
19	1100	65	68	42	3	Cu	50											
20	1400	65	70	38	2	Cu	50											
21	2200	64	65	36	10	Sc	50											
22	0000	80	64	41	6	Cu												
23	2100	75	68	71	0													
24	2300	72	67	79	0													

Table 11 (Continued)

Time entries on this form are in meridian time.

To convert to G.C.T. add subtract hours.

STATION O'Neill, Neb. MONTH August DAY 14 YEAR 1951

LAT. 36° 20' N LONG. 98° 31' W

Gas Release (CST)	Time (CST)	Ceiling (Hundreds of Feet)	Sky	Wind Dir. (Miles)	Wind Speed (Knots)	Wind Dir. (Miles)	Wind Speed (Miles)	Temp. (°F)	Dew Pt. (°F)	Sea	Weather and Level Obs. (Miles)	Wind Dir. (Miles)	Wind Speed (Miles)	Character & Shifts (Miles)	Remarks and Supplemental Coded Data	Observer's Initial
25	1300	50	4	15	11A	10	11A	77	67	7		10	11A	12	14A	14B
26	1400	UNL		15	11A	10	11A	77	67	7		10	11A	12	14A	14B
27	1400	UNL		15	11A	10	11A	77	67	7		10	11A	12	14A	14B
28	1400	UNL		15	11A	10	11A	77	67	7		10	11A	12	14A	14B
29	1400	UNL		15	11A	10	11A	77	67	7		10	11A	12	14A	14B
30	1300	UNL		15	11A	10	11A	77	67	7		10	11A	12	14A	14B
31	1500	UNL		15	11A	10	11A	77	67	7		10	11A	12	14A	14B
32	1600	UNL		15	11A	10	11A	77	67	7		10	11A	12	14A	14B
33	1300	UNL		15	11A	10	11A	77	67	7		10	11A	12	14A	14B
34	1500	UNL		15	11A	10	11A	77	67	7		10	11A	12	14A	14B
35	2130	UNL		15	11A	10	11A	77	67	7		10	11A	12	14A	14B
36	2330	UNL		15	11A	10	11A	77	67	7		10	11A	12	14A	14B
37	0300	UNL		15	11A	10	11A	77	67	7		10	11A	12	14A	14B
38	0500	UNL		15	11A	10	11A	77	67	7		10	11A	12	14A	14B
39	0600	UNL		15	11A	10	11A	77	67	7		10	11A	12	14A	14B
40	0805	UNL		15	11A	10	11A	77	67	7		10	11A	12	14A	14B
41	0805	UNL		15	11A	10	11A	77	67	7		10	11A	12	14A	14B
42	0805	UNL		15	11A	10	11A	77	67	7		10	11A	12	14A	14B
43	1200	UNL		15	11A	10	11A	77	67	7		10	11A	12	14A	14B
44	1400	UNL		15	11A	10	11A	77	67	7		10	11A	12	14A	14B
45	1705	UNL		15	11A	10	11A	77	67	7		10	11A	12	14A	14B
46	1845	UNL		15	11A	10	11A	77	67	7		10	11A	12	14A	14B
47	0900	UNL		15	11A	10	11A	77	67	7		10	11A	12	14A	14B

Gas Release (CST)	Time (CST)	Dry Bulb (°F)	Wet Bulb (°F)	Relative Humidity (%)	Total Sky Cover	LOWEST LAYER			SECOND LAYER			THIRD LAYER			FOURTH LAYER			Net 3-Hr. Change		
						Type	Dir.	Height	Type	Dir.	Height	Type	Dir.	Height	Type	Dir.	Height		Summation Total	
25	1300	76	70.2	72	10	Cu	50													
26	1200	81	75	57	8	Sc	35													
27	1400	81	76	50	7	Sc	45													
28	1400	75	70	78	6															
29	1400	77	68	63	0															
30	1300	84	74	38	0															
31	1500	82	74	32	2	Cu	60													
32	2000	72	62	57	1	Sc														
33	1500	83	68	48	3	Sc														
34	1500	88	71	50	3	Sc														
35	2100	82	67	77	2	Sc														
36	2130	88	64	75	0															
37	0300	88	64	75	3	Cu														
38	0300	88	64	75	6	Cu														
39	2235	70	58	48	0															
40	0007	69	59	37	0															
41	0305	69	60	58	0															
42	0505	73	60	44	10	Cu	6													
43	1200	85	68	34	8	Cu	6													
44	1400	89	69	21	9	Cu	6													
45	1705	84	67	20	9	Cu	6													
46	1845	91	66	28	9	Cu	6													
47	0900	88	65	42	3	Cu	6													

STATION C'Neill, Neb.
 MONTH August DAY 10 YEAR 1931
 LAT. 42° 30' N LONG. 98° 34' W

Table 3.1 (Continued)

Time entries on this form are h meridian time.

To convert to G.C.T. (add) (subtract) hours.

Case Release	Time (CST)	Ceiling (Hundreds of Feet)	Sky	Visibility (Miles)	Weather and Level Clouds to Vision		Sea	Dew Pt. (°F)	Temp. (°F)	Wind Direction	Wind Speed (Knots)		Character & Shifts	Altimeter Set (In)	Remarks and Supplemental Coded Data	Observer's Initials
					PL	Temp. (°F)					11A	11B				
48a	1200	UNL		15				68	44	10				14	14B	15
48	0900	UNL		15				68	55	S						
49	1059	UNL		15				76	55	S						
50	1408	UNL		15				88	52	S						
51	1529	UNL		15				90	53	W/SW						
52	1112	UNL		15				79	55	ESE						
53	2000	UNL		15				62	44	SE						
54	2203	UNL		15				66	48	S						
55	0058	UNL		15				62	51	SSE						
56	0201	UNL		15				80	47	S						
57	1728	UNL		15				98	51	S/SW						
58	1927	UNL		15				79	51	S						
59	2226	40		15				75	50	S						
60	0027	300		15				70	47	S						
61	1101	UNL		15				94	34	S/SW						
62	1400	180		10				89	53	S						
63	2000	UNL		13				74	52	WSW						
64	2210	UNL		15				08	54	SW						
65	1915	UNL		15				28	47	S						

Case Release	Time (CST)	Wet Bulb (°F)	Dry Bulb (°F)	Relative Humidity (%)	Total Sky Cover	LOWEST LAYER			SECOND LAYER			THIRD LAYER			FOURTH LAYER			Net 3-hr. Change
						Type	Am't.	Height	Type	Am't.	Height	Type	Am't.	Height	Type	Am't.	Height	
48a	1200	68	55	42	6	Cu	1	50										
48	0900	68	60	62	1	Sc	1											
49	1059	79	79	62	1	Sc	1											
50	1408	88	87	32	1	Cl	230											
51	1529	90	88	31	1	Cu	25											
52	1112	79	68	31	0													
53	2000	82	52	52	0													
54	2202	86	56	53	0													
55	0058	62	54	69	0													
56	0201	60	53	63	0													
57	1728	96	69	22	0													
58	1927	79	63	37	3	Ac	60											
59	2226	75	61	43	5	Cu	40											
60	0027	78	60	33	7	Ac	80	5	Cs	300								
61	1101	94	62	12	3	Sc	50											
62	1400	89	87	30	8	Sc	30	5	Ac	160								
63	2000	75	81	65	1	Cl												
64	2210	68	60	62	0	Sc												
65	1915	79	60	33	2	Sc												